

Series A and B **μ POWER™ 1.5 Watts 24-Lead DIP****Low Noise Fully Regulated DC-DC Converters****Features**

- Thick-film hybrid circuit
- Surface mount technology
- Up to 1.5 watts output power
- High power density
- Excellent regulation
- 24-lead DIP compatible package
- High input/output isolation
- Short circuit protection
- Low output ripple & noise
- Single or dual outputs
- High MTBF
- 100% burned-in and tested
- Metal case shielding
- Vacuum encapsulated potting

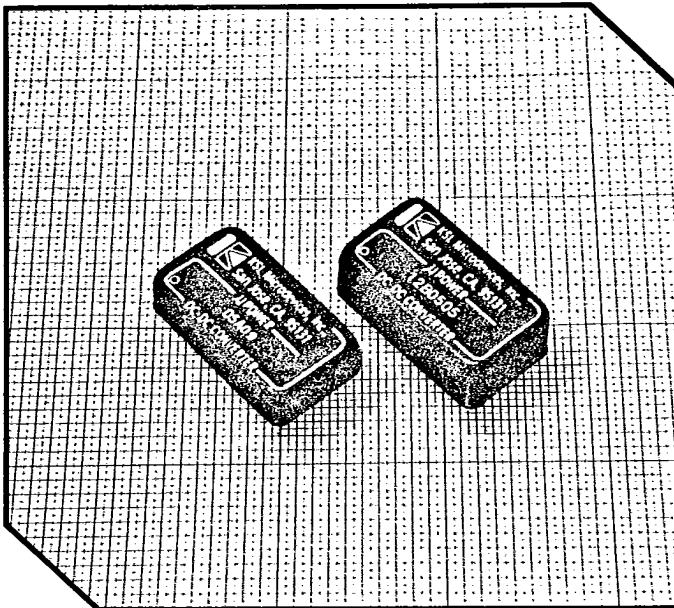
General Specifications

- Input Voltage Range: $\pm 10\%$ at nominal
- Output Voltage Tolerance: $\pm 1\%$ at nominal
- Input Reflected Ripple: 1% of V_{in} max.
- Line Regulation: $\pm .02\%$ for $\pm 10\%$ line change
- Load Regulation: .05% (10% to 100% load)
- Output Ripple & Noise: 10mV p-p
- Input/Output Isolation: $150M\Omega$ 500VDC min.
- Short Circuit Protection: current limiting
- Efficiency: 60% @ nominal voltage
- Transient Response: Less than 10μ sec.
- MTBF: 340,000 hours
- Operating Temperature: $-25^\circ C$ to $+70^\circ C$
- Storage Temperature: $-55^\circ C$ to $+70^\circ C$
- Temperature Coefficient: 100ppm/ $^\circ C$
- Burn-In: $70^\circ C$ for 4 hours and tested
- Long Term Stability: 0.4%/khours

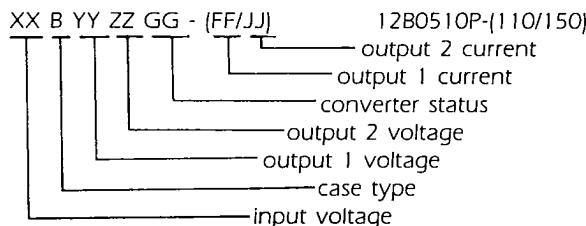
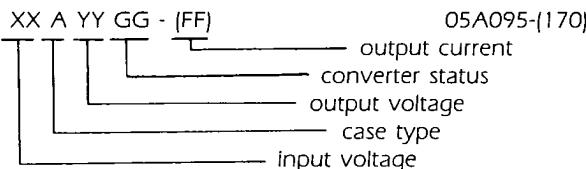
Special Options

- Case: EMI/RF Continuous Shielding Package
Six-sided enclosure grounded
- Stabilization Bake: MIL-STD-883B, method 1008.2
24 hours at $+125^\circ C$
- Burn-In: MIL-STD-883B, method 1015.4
96 hours at $+70^\circ C$ case temperature
- Temperature Cycle: MIL-STD-883B, method 1010.5
 $-55^\circ C / +125^\circ C$ 10 cycles minimum
- Thermal Shock: MIL-STD-883B, method 1011.4
 $-55^\circ C / 5$ minutes, $+125^\circ C / 5$ minutes

*Specifications subject to change without notice

**Part Number — Custom Designs**

KSL μ POWER converters are used in a wide variety of special custom design applications where alternate voltages, currents, pin-outs or multiple outputs are required.

**Converter Status**

U: Unregulated	S: Special specs
R: Regulated	J: Hi-Rel screened
C: Custom circuit	T: Triple outputs
P: Special pin-outs	Q: Quad outputs

Applications

- LAN Networks
- ECL Applications
- Instrumentation
- Medical electronics
- Robotic control



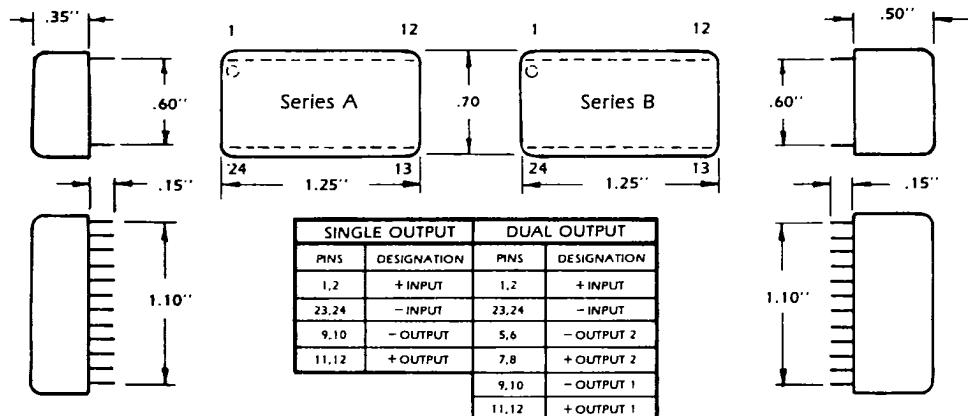
Selection Chart (Maximum Rating)

Model	Input Voltage	Output Voltage	Load Current*	Model	Input Voltage	Output Voltage	Load Current*
05A05	+/-5V	+/-5V	300 mA	05B0505	+/-5V	± 5V	± 150 mA
05A09	+/-5V	+/-9V	160 mA	05B0909	+/-5V	± 9V	± 80 mA
05A12	+/-5V	+/-12V	120 mA	05B1212	+/-5V	± 12V	± 60 mA
05A15	+/-5V	+/-15V	100 mA	05B1515	+/-5V	± 15V	± 50 mA
05A24	+/-5V	+/-24V	60 mA	05B2424	+/-5V	± 24V	± 30 mA
05A28	+/-5V	+/-28V	50 mA	05B2828	+/-5V	± 28V	± 25 mA
12A05	+/-12V	+/-5V	300 mA	12B0505	+/-12V	± 5V	± 150 mA
12A09	+/-12V	+/-9V	160 mA	12B0909	+/-12V	± 9V	± 80 mA
12A12	+/-12V	+/-12V	120 mA	12B1212	+/-12V	± 12V	± 60 mA
12A15	+/-12V	+/-15V	100 mA	12B1515	+/-12V	± 15V	± 50 mA
12A24	+/-12V	+/-24V	60 mA	12B2424	+/-12V	± 24V	± 30 mA
12A28	+/-12V	+/-28V	50 mA	12B2828	+/-12V	± 28V	± 25 mA
15A05	+/-15V	+/-5V	300 mA	15B0505	+/-15V	± 5V	± 150 mA
15A09	+/-15V	+/-9V	160 mA	15B0909	+/-15V	± 9V	± 80 mA
15A12	+/-15V	+/-12V	120 mA	15B1212	+/-15V	± 12V	± 60 mA
15A15	+/-15V	+/-15V	100 mA	15B1515	+/-15V	± 15V	± 50 mA
15A24	+/-15V	+/-24V	60 mA	15B2424	+/-15V	± 24V	± 30 mA
15A28	+/-15V	+/-28V	50 mA	15B2828	+/-15V	± 28V	± 25 mA
24A05	+/-24V	+/-5V	300 mA	24B0505	+/-24V	± 5V	± 150 mA
24A09	+/-24V	+/-9V	160 mA	24B0909	+/-24V	± 9V	± 80 mA
24A12	+/-24V	+/-12V	120 mA	24B1212	+/-24V	± 12V	± 60 mA
24A15	+/-24V	+/-15V	100 mA	24B1515	+/-24V	± 15V	± 50 mA
24A24	+/-24V	+/-24V	60 mA	24B2424	+/-24V	± 24V	± 30 mA
24A28	+/-24V	+/-28V	50 mA	24B2828	+/-24V	± 28V	± 25 mA
48A05	+/-48V	+/-5V	300 mA	48B0505	+/-48V	± 5V	± 150 mA
48A09	+/-48V	+/-9V	160 mA	48B0909	+/-48V	± 9V	± 80 mA
48A12	+/-48V	+/-12V	120 mA	48B1212	+/-48V	± 12V	± 60 mA
48A15	+/-48V	+/-15V	100 mA	48B1515	+/-48V	± 15V	± 50 mA
48A24	+/-48V	+/-24V	60 mA	48B2424	+/-48V	± 24V	± 30 mA
48A28	+/-48V	+/-28V	50 mA	48B2828	+/-48V	± 28V	± 25 mA

*Current must be specified.

Package Dimensions

BOTTOM VIEW



Design Notes